

Climate of Opinion

The Stockholm Network Energy and Environment Update

Issue 6. November 2007

Contents

- 1 – Blue Sky Thinking for a Green Future – Paul Domjan
- 2 – A Touch of Frost – Helen Disney
- 2 – What Carbon Mitigation Policy for the EU? – Helen Davison
- 3 – Book Review – *Six Degrees* by Mark Lynas – Gulya Isyanova
- 4 – Microclimates – Top Stories in Energy and Environment

Welcome to *Climate of Opinion* – Helen Disney and Paul Domjan¹

Welcome to the sixth edition of the Stockholm Network's energy and environmental affairs newsletter, *Climate of Opinion*. This month, we are taking the opportunity to introduce our readers to an exciting new Stockholm Network project that aims to examine the effects of carbon mitigation policy. At present we feel that there is a clear lack of good, hard data on where the various options could take us - both on an environmental and economic level. We feel that this project could help to plug that gap, in turn helping policy-makers and analysts to formulate sensible and effective climate change policy.

If you have any comments or recommendations about *Climate of Opinion*, or would be interested in contributing an article for a future edition, please contact Helen Davison at helend@stockholm-network.org. We hope you enjoy this newsletter.

Blue Sky Thinking for a Green Future – Paul Domjan

Now that sufficient scientific consensus has been reached on climate change to ensure that all political parties accept the need for serious policy in this area, the debate has shifted decisively from science to policy. However, there is currently a lack of hard and clear data on the kinds of climatic and economic consequences different policy options would have; how these climatic and economic developments would interact; as well as their plausible directions of development.

Most importantly, the information that exists is often hard for those who lack expertise in both the science and the economics of climate change to compare and contextualize. There is a need for a tool to help both key stakeholders and the public at large to think concretely about the future impacts and costs of potential policy

options. In particular, there is need for a structure that will inter-relate the climatic, economic and social impacts of different policy approaches.

With this in mind, the Stockholm Network energy and environment programme is now launching a major new project to use scenario building as means to explore possible futures responses to climate change and their possible impacts. A process of scenario building is a particularly appropriate response to the climate change debate for a number of reasons.

First; the purpose of scenarios is not to advocate a particular type of response, but rather to provide a non-partisan platform to build consensus around what action is both necessary and possible. Each scenario will show both the logic driving a particular policy outcome and its impact on climate change and society. Unlike potentially partisan policy analysis, scenarios provide a framework to enable those from across the political spectrum to discuss the issue based not on what they would like to see happen, but rather on what potentially could happen.

Second; scenarios provide concrete examples of these interrelations in a way that is easy to communicate and enables simple comparison of different policy options. While “cap and trade” and “carbon tax” are abstract concepts for many stakeholders, and certainly for the public at large, concrete stories give the issue life for non-experts by showing what might lead these different options to be adopted and what their consequences would be for environment and society.

The Stockholm Network will not build the scenarios ourselves. Rather, we will facilitate a process that will bring together experts from academic climate science and economics, the environmental movement, government and business to share their perspectives on climate change, potential policy responses, and their consequences. Jointly these experts will identify the key issues that will determine future developments in this area.

Some of these key issues will be highly important and highly certain, like the rising incidence of

¹ Helen Disney is Chief Executive of the Stockholm Network. Paul Domjan is energy fellow at the Stockholm Network and a director of John Howell and Co. Ltd., a risk consultancy firm.

extreme weather events as global temperatures increase. These events are drivers that will occur in every scenario. Others of the key issues will be very important, but highly uncertain, like whether a successor treaty to Kyoto will address emissions from developing countries. These critical uncertainties will have different outcomes in different scenarios. In essence, the scenarios will show plausible future storylines about the outcome of the critical uncertainties against the background of the drivers. Because the drivers and critical uncertainties are drawn from the full range of relevant areas (e.g. climate science, sociology, economics, policy), every scenario reveals a unique interplay of these issues. Thus, the scenario building process itself provides a basis for an interdisciplinary conversation about the future.

Scenarios were used in this way to great effect in South Africa during the transition from apartheid, in Columbia during the debate about how to respond to the growing power of drug lords, and in Japan during the debate about Japanese economic malaise.

How does the process work?

The participants are told that the exercise is not about what they would like to see happen, but rather about what actually might happen. During the process of building the scenarios and presenting them back to the group, the participants are allowed to question and interrogate possible scenarios by asking “Why did that happen?” and “What happens next?,” but are not allowed to dismiss them because they are undesirable.¹

Once the scenarios are developed, they become a simple and powerful tool for discussing the complexity of climate change policy with a variety of stakeholders. They will provide a tool for thinking about how far carbon mitigating policies could take us and at what cost, how effective

they will be in addressing climate-change challenges and how global energy markets would evolve if countries were to adopt specific carbon mitigation policies. Policymakers can use them to explain the trade-offs implicit in climate change policy and help develop support for climate change policies from other stakeholders. Business can use them as a tool to help them understand the current and future importance of the issue and develop strategy to contribute constructively to addressing climate change. The media can use them as a way of connecting the high politics surrounding Kyoto and the IPCC to the everyday lives of their readers, listeners and viewers. Because of their narrative structure, the scenarios can easily be adapted for different audiences and national contexts by the Stockholm Network’s member think tanks across Europe.

The combination of increased scientific certainty, rising public concern and growing political consensus both in Europe and globally means that a tool is sorely needed to help non-experts think about the complex issues and trade-offs surrounding climate change policy. Stockholm Network aims to use scenario building as a way to facilitate consensus building, capture the results of that consensus building in concrete scenarios about the future, and then use those scenarios to allow as wide an audience as possible benefit from the results of the work.

A Touch of Frost – Helen Disney

What happens to a public policy issue when it becomes polarised between two extreme points of view? The answer is usually nothing. There are a host of policy debates and political problems where positions become so entrenched that the least risky option for decision makers is to either avoid the topic altogether or to stick to the status quo. From NHS reform to intellectual property to GM foods, one can look back over the recent history of European public policy and find a host of relevant examples.

Climate change is one such area where debate tends to fall into two camps distinctly frosty to one another – those who argue that

¹ Our work will owe a particular debt to Adam Kahane’s 1991 Mont Fleur scenario project in South Africa that, to my knowledge, first introduced these simple rules to keep consensus building scenarios descriptive rather than normative.

Governments and individuals must take immediate and severe action to reduce carbon emissions and diminish what they see as wasteful consumption, versus those who say that climate change is not happening, or not happening as much as some reports claim, or that we should embrace economic growth as the solution to environmental problems, rather than the cause.

While there may be a space in the middle for those who argue that there are a host of good reasons for 'going green' - be it a business case, a security case, or a political case – what this might look like and what the consequences of it will be from a social and economic point of view is rarely imagined, consumed as we still seem to remain about the parameters of the debate rather than the debate itself.

In such circumstances, it may be helpful to bring together a group of experts from a range of backgrounds and from across the political spectrum to sketch out possible maps for the future and to chart how one might get from A to B. Unless policymakers can understand and communicate a new picture of the future, it is unlikely they will convince their target audience – the voters – that change comes at a worthwhile price.

A number of think tanks, the Stockholm Network included, have used these techniques over the years to drive forward an issue that has become 'stuck' and to garner new ideas for how to address it. The Galen Institute in the USA made successful use of this model with their Healthcare Consensus Group, which aimed to generate new ideas for reforming US healthcare and closing the gap of uninsured patients. In the UK, Civitas employed a similar model to demonstrate cross-party support for NHS reform, working with think tanks, doctors and other health experts to map out pathways, showing how a new system could maintain social solidarity and yet increase consumer choice and competition.

The Stockholm Network used similar techniques in its Intellectual Property Academy in Israel to address the issue of IPRs by engineering a simulation which allowed government officials to consider how IP issues cut across a diverse range

of Government departments and showing the benefits and trade-offs of poor decision making on IPRs and innovation.

The Stockholm Network's carbon mitigation policy scenarios are not intended to provide all the answers. What we hope is that they will move the debate onto a more constructive footing which recognises that some hard decisions have to be made and that, when we look in depth into the issues, our views on the solutions may not be as polarised as we first thought.

What Climate Change Policy for the EU? – Helen Davison¹

With Al Gore and the IPCC the proud recipients of this year's Nobel Peace prize and a host of glitzy climate change awareness raising concerts over the last few months, the issue of carbon emissions has been thrust into the public consciousness as never before.

The battle to win hearts and minds in terms of accepting the existence of man-made climate change seems to have been won. A recent YouGov survey for the *Daily Telegraph* found that as many as 85% of the public think global warming is taking place and 79% believe that unless action is taken global warming will accelerate.² The real, and more constructive, debate must now centre on what this action should be. So far, this debate has been dominated by 'big government' solutions. This can largely be attributed to the right's initial preoccupation with the science behind climate change, but also because interventionist solutions provide extremely 'visible' ways to deal with global warming, lending governments' instant kudos with environmentally savvy voters and the media, regardless of the outcomes.

¹ Helen Davison is a research officer at the Stockholm Network

²<http://yougovalpha.com/interactive/kellnerMain.asp?jlD=3&ald=4049&slD=6&wID=0&UID=>

Big government solutions generally focus on extensive government intervention in the form of mandatory targets, state support for renewables and bans on specific polluting activities. Subsidies can provide much needed capital at the start up phase of any renewable energy project but, if shielded from market forces in its initial phases, the end result is often a commercially unviable product. Mandatory targets for renewables also have their drawbacks; they tend to be short sighted in their focus and over-emphasise means over ends leading to overly costly and economically inefficient outcomes. The furor surrounding biofuels provides a clear example of badly thought out government quotas. The net benefit of an EU target of a 5.75% market share for biofuels in the overall transport fuel supply has, on reflection, not led to the most environmentally friendly or economically sound results. Farmers in the EU scramble to receive generous EU subsidies while rainforests in the developing world have been cleared to feed the West's thirst for alternative sources of energy. Above all, reducing overall energy consumption has been overlooked in the process.

Market oriented solutions, which aim to reduce carbon emissions as well as encourage energy efficiency and the development of renewable energy sources, are more viable. They have the potential to work because they provide economic incentives to reduce emissions, while allowing businesses to remain economically competitive. They quickly reveal the least costly places to cut emissions and result in innovative ways to do so as businesses seek to maintain their edge over competitors.

Broadly speaking, there are two competing economic tools vying for policy dominance; carbon tax - a tax on energy sources which emit CO₂ and emissions trading - a system where a central authority sets a cap on the amount of CO₂ that can be emitted.

At first glance carbon taxes look like a good solution. They are a simple tool which can be implemented quickly and easily. Many economists believe that this makes them superior to any alternatives. Others point to the long-term predictability it will bring to energy prices which will encourage green investment.

However, as with all taxes, regardless of their actual effect, they will be seen as a revenue generator for governments, leading those affected to try to find loopholes to avoid them or relocate to non-taxing destinations. As taxes are redistributed, it is uncertain that the money collected will then go back into further energy investment, and most importantly, if set too low they will not necessarily result in a reduction in emissions. On the flip side, tax takes set high enough to produce the necessary reductions are likely to be politically unfeasible.

Under emissions trading, governments set an overall cap on emissions, issue allowances for participants and leave the market to do the rest – polluters are free to trade their permits according to their needs. In theory this kind of scheme will have minimal negative impact on the economy as industry and business will look for the least expensive way of cutting down on emissions. Cap and trade is not without its problems not least the significant costs associated with ensuring compliance. Carbon price volatility could scare off investors into renewable energy and the opacity and complexity of the allocation process leaves it open to exploitation by special interests. Initial trials of the scheme in the EU have so far been unsuccessful in reducing emissions, largely due to an over allocation of permits in Phase I leading to very high price volatility. So far the second phase has resulted in legal wrangling over the allocation of permits which has threatened to derail the allocation process.

However, the biggest argument in favour of cap and trade is that it is politically viable, with broad support from both industry and the major environmental groups. Most importantly, however, trading schemes have worked in the past. Trading has also been used to great effect in the past. Nearly fifteen years ago the US government set up a trading scheme to reduce acid rain by allowing companies to trade credits for sulphur dioxide emissions. The scheme quickly led to a reduction in emissions at a rate faster than scientists predicted and at a substantially lower cost.

The same YouGov poll for the *Daily Telegraph* revealed that, whilst the public overwhelmingly believe that something must be done about climate change, there is widespread disagreement about the 'what' and 'how'. Voters tend to favour solutions which do not involve taxation and do not require them to make substantial changes to their lifestyles. Therefore, from both a practical and political perspective, emissions trading is an attractive policy option. Whether the EU can turn this policy into a success in Phase II remains to be seen.

Book Review

Six Degrees by Mark Lynas – Gulya Isyanova¹

Over the last few years, the concept of climate change has become a staple not only in mainstream politics and the media, but also in the popular consciousness. However, while we may be heading towards a general consensus that the planet is warming up, there is no common view on the exact active and passive implications of this for our way of life.

The science community is predicting a change in the average temperature of the atmosphere of anything between one to six degrees by the end of this century. Many mistakenly translate this as simply meaning warmer weather. In his book *Six Degrees*, Mark Lynas sets out to carefully illustrate degree by degree the fallacy of this assumption as well as the potentially catastrophic consequences of upsetting the planet's delicate atmospheric balance.

Each degree of change is given a chapter where Lynas outlines this new warmer world, touching on various geographical hotspots and carefully detailing the kinds of changes that are likely to occur there. The central message of the book is that while we have released enough CO₂ to be unable to prevent some of these developments, there is still enough time for us to avoid the

worst possible outcome by drastically cutting our CO₂ emissions as soon as possible.

In fact, Lynas presents us with a ticking time-bomb. Last time this much CO₂ was released into the atmosphere the planet was unrecognisable and it took millions of years for the earth to absorb enough CO₂ to sustain the kind of biodiversity we are used to. What makes the current situation so explosive is that the amount of CO₂ which naturally took millions of years to release has now been unleashed in the space of two hundred years. Those familiar with James Lovelock's work on Gaia theory will recognise the message that we are playing a dangerous and, in many ways, unpredictable game, and that in the end, it is us who will lose.

The sense of urgency Lynas wants to convey pervades the book, but with none of the proselytising or repetitiveness that often plague the climate change issue. Instead he points out various alarming trends and specific developments which are happening much earlier than anticipated by even the most conservative estimates of a few years ago.

Lynas successfully manages to convey the extent of interconnectivity that exists in the functioning of the planet and does so by making the reader gradually deduce this for themselves. It is precisely this interconnectivity that makes the system so prone to positive feedback, a concept Lynas comes back to again and again, which makes climate change an accelerating snowball of doom. For example, as the planet heats up, so precipitation patterns alter, leading to an oscillation between the extremes of drought and flash floods. The lack of water and too much heat put plant life under stress and they release more CO₂ – further feeding the problem.

Lynas bases his case on peer-reviewed scientific literature, which consists mainly of palaeontological, oceanographic and climate modelling data. Although he does not lay claim to indisputable certainty, he does inevitably come off as an apocalyptic oracle. To his credit though, Lynas makes a point of including competing analyses and does point out areas of uncertainty. An important point that Lynas makes is that while science cannot give us 100% guarantees on the

¹ Gulya Isyanova is a research fellow at the Stockholm Network

details and the precise timing of future developments, considering what is at stake, the trends being observed entail enough of a high probability of following prior patterns, that this point becomes moot.

Lynas presents the reader with an option. Unless decisive action is taken to try and contain global warming at the two degree level and unless these measures are put into place within the next eight years, the end of the world as we know it is nigh, and much sooner than is comfortable to contemplate.

Microclimates – Top Stories in Energy and Environment

To Infinity and Beyond for Hillary?

The US Presidential candidacy race is heating up and, with it, an array of environmental policies. Democrat hopeful Hillary Clinton has espoused optimism that there are economic opportunities to be found in combating climate change, likening the opportunities for innovation to that of the space race of the 20th century.

<http://ap.google.com/article/ALeqM5gCHpSuZFidIjpTXHFUXDA22yc0oQD8SNTOU0I>

CBI Calls for Green Taxes

A recent CBI report called for new taxes and regulations to tackle climate change. Senior leaders pledged their support for radical measures to stimulate the development of a low-carbon economy. The report calls for tax incentives to cut emissions from homes and property, invest in energy saving devices and reward corporate best practice on reporting on emissions and helping employees reduce their carbon footprints.

<http://www.ft.com/cms/s/0/0931c736-9bc1-11dc-8aad-000779fd2ac.html>

Climate Confusion

In a move that delighted green groups, Gordon Brown embraced tough new measures to reduce carbon emissions. In his first environment speech as Prime Minister, Brown proposed cutting UK carbon emissions by as much as 80% by 2050 and a stringent carbon tax regime to meet these ambitious targets. However, green groups were soon back on the offensive after he called for a new generation of nuclear plants and personally endorsed the building of a third runway at Heathrow.

<http://www.guardian.co.uk/environment/2007/nov/20/carbonemissions.renewableenergy>

<http://www.guardian.co.uk/nuclear/article/0,,2217048,00.html?gusrc=rss&feed=networkfront>

Australia's Action Man

The newly inaugurated Australian Prime Minister began his term with bold new moves for cutting carbon in Australia. In a clear policy shift from former liberal Prime Minister Howard, new Prime Minister Rudd has promised to ratify the Kyoto treaty and pledged 'action and action now' on climate change.

http://www.iht.com/articles/ap/2007/11/25/asia/AS-POL-Australia-Election.php#end_main

Taming the Dragon

French president, Nicolas Sarkozy urged China to grow in a green way at the end of a trip that involved the signing of contracts with French companies for nuclear reactors and Airbus passenger jets worth nearly US\$30 billion. In a speech to a Beijing University, Sarkozy emphasised the responsibility of the Chinese to address climate change in order to avoid severe economic and social consequences.

http://www.iht.com/articles/ap/2007/11/27/business/AS-GEN-China-France.php#end_main